

Appln No. 10/799,143
Amdt date June 8, 2009
Reply to Office action of January 7, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An anchoring element for use in spinal or bone surgery; said anchoring element comprising:

a shaft for anchoring in a vertebra or a bone section;

a rod having a pre-determined diameter (D) and an outer surface;

a receiving part, which is connected to the shaft and is structured and arranged to connect to the rod, the receiving part having a longitudinal axis and comprising a U-shaped recess forming a channel for the reception of the rod and two legs having free ends, the legs comprising a first internal thread, the legs further providing an exterior end surface of the receiving part; and

a securing element comprising a screw member having a first external thread that engages and cooperates with the first internal thread;

~~whereby~~ wherein a first distance from the exterior end surface of the receiving part to a closest portion of the outer surface of the rod in an axial direction is a pre-determined distance (A) ~~the first internal thread extending from the exterior end surface of the receiving part to a~~ the first internal thread extending from the exterior end surface of the receiving part to a second distance that is smaller than or equal to the pre-determined distance (A); and

wherein the receiving part further comprising an ~~internal~~ undercut on an inner surface of the legs adjacent to the internal thread, the undercut extends in a circumferential direction and the first internal thread extending to the undercut, the undercut having an edge farthest away from the first internal thread, the edge being located at a third distance (B) from the exterior end surface, the distance (B) being larger than the predetermined distance (A).

2. (Previously Presented) The anchoring element according to Claim 1, wherein the undercut has a depth that corresponds at least to a depth of the first internal thread.

3-4 (Cancelled)

5. (Previously Presented) The anchoring element according to Claim 1, further comprising a screw nut having an internal thread;
and

wherein the receiving part further comprises an external thread that cooperates with the internal thread of the screw nut.

6. (Previously Presented) The anchoring element according to Claim 1, wherein the internal and external threads each are a thread selected from a metric thread, a buttress thread, a flat thread or a thread with a negative load-bearing angle.

7. (Previously presented) The anchoring element according to Claim 1, wherein a connection between the shaft and the receiving part is structured and arranged to be a monoaxial connection.

8. (Previously presented) The anchoring element according to Claim 1, wherein the shaft and the receiving part are an integral part.

9. (Withdrawn) The anchoring element according to Claim 1, wherein a connection between the shaft and the receiving part is structured and arranged to be a polyaxial connection.

10. (Withdrawn - Currently Amended) An anchoring element for use in spinal or bone surgery; said anchoring element comprising:

a screw member comprising a spherical segment-shaped head and a shaft with a bone thread;

a rod having a predetermined diameter (D) and an outer surface;

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a receiving part which is connected to the screw member and is structured and arranged to connect to the rod, the receiving part comprising a longitudinal axis, a first bore in axially symmetrical alignment therewith and having a first diameter of sufficient size to permit the bone thread of the shaft to pass through but not to permit the head to pass through, and a second bore coaxial with the first bore and having a second diameter of sufficient size to permit the head to pass through, the receiving part further comprising a U-shaped recess forming a channel for the reception of the rod and two legs having free ends, the legs comprising a first thread, the legs further providing an exterior end surface of the receiving part;

a cylindrical pressure element having an outer diameter of a size capable of being inserted into the receiving part and having a first side shaped to engage the head of the screw element and a second side opposite the first side shaped to receive the rod inserted into the U-shaped recess; and

a securing element comprising a second thread that engages and cooperates with the first thread;

~~whereby~~ wherein a first distance from the exterior end surface of the receiving part to a closest portion of the outer surface of the rod in an axial direction is a pre-determined distance (A); ~~the first thread extends from a location at or adjacent~~ the exterior end surface of the receiving part to a second distance that is smaller than or equal to the pre-determined distance (A); and

wherein the receiving part further comprising an undercut on an inner surface of the legs adjacent to the internal thread, the undercut extends in a circumferential direction and the first thread extending to the undercut, the undercut having an edge farthest away from the first thread, the edge being located at a third distance (B) from the exterior end surface, the distance (B) being larger than the predetermined distance (A).

11. (Withdrawn) The anchoring element according to Claim 10, wherein the undercut has a depth that corresponds at least to the depth of the first thread.

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12. (Withdrawn) The anchoring element according to Claim 10, wherein the first thread comprises a first internal thread and the securing element comprises a screw member having a first external thread that cooperates with the first internal thread.

13. (Withdrawn) The anchoring element according to Claim 10, wherein the first thread is a first external thread and the securing element comprises a screw nut having a first internal thread that cooperates with the first external thread.

14. (Withdrawn) The anchoring element according to Claim 10, further comprising a screw nut having an internal thread;

wherein the first thread of the receiving part comprises a first internal thread, the second thread of the securing element comprising an external thread that cooperates with the first internal thread; and

wherein the receiving part further comprises an external thread that cooperates with the internal thread of the screw nut.

15. (Withdrawn) The anchoring element according to Claim 10, wherein the threads each are a thread selected from a metric thread, a buttress thread, a flat thread or a thread with a negative load-bearing angle.

16. - 20 (Cancelled)

21. (Currently Amended) An anchoring element for use in spinal or bone surgery; said anchoring element comprising:

a shaft for anchoring in a vertebra or a bone section;

a rod having a pre-determined diameter (D) and an outer surface;

a receiving part which is connected to the shaft and is structured and arranged to connect to the rod, the receiving part having a longitudinal axis and comprising a U-shaped recess

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forming a channel for the reception of the rod and two legs having free ends, the legs comprising a first internal thread, the legs further providing an exterior end surface of the receiving part; and

a securing element comprising a screw member having a first external thread that engages and cooperates with the first internal thread;

~~whereby~~ wherein a first distance from the exterior end surface of the receiving part to a closest portion of the outer surface of the rod in an axial direction is a pre-determined distance (A) ~~[[;]]~~ , the first internal thread extending from a location adjacent the exterior end surface of the receiving part to a location that is a second distance from the exterior end surface that is smaller than or equal to the pre-determined distance (A); and

wherein the receiving part further comprising an ~~internal~~ undercut on an inner surface of the legs adjacent to the internal thread, the undercut extends in a circumferential direction and the first internal thread extending to the undercut, the undercut having an edge farthest away from the first thread, the edge being located at a third distance (B) from the exterior end surface, the distance (B) being larger than the pre-determined distance (A).

22. (Previously Presented) The anchoring element according to Claim 21, wherein the undercut has a depth that corresponds at least to a depth of the first internal thread.

23-24 (Cancelled)

25. (Previously Presented) The anchoring element according to Claim 21, further comprising a screw nut having an internal thread;
and

wherein the receiving part further comprises an external thread that cooperates with the internal thread of the screw nut.

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26. (Previously Presented) The anchoring element according to Claim 21, wherein the internal and external threads each are a thread selected from a metric thread, a buttress thread, a flat thread or a thread with a negative load-bearing angle.

27. (Previously presented) The anchoring element according to Claim 21, wherein a connection between the shaft and the receiving part is structured and arranged to be a monoaxial connection.

28. (Withdrawn) The anchoring element according to Claim 21, wherein a connection between the shaft and the receiving part is structured and arranged to be a polyaxial connection.

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (New) The anchoring element according to Claim 1, wherein an entire length of the securing element in the axial direction is equal to or less than the predetermined distance (A).

34. (New) The anchoring element according to Claim 21, wherein an entire length of the securing element in the axial direction is equal to or less than the predetermined distance (A).

35. (New) The anchoring element according to Claim 33, wherein the first thread comprises fewer than four full turns.

36. (New) The anchoring element according to Claim 34, wherein the first thread comprises fewer than four full turns.

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37. (New) The anchoring element according to claim 1 wherein the securing element fixes the rod in the receiving part without protruding outward beyond the exterior end surface of the receiving part.

38. (New) The anchoring element according to claim 21 wherein the securing element fixes the rod in the receiving part without protruding outward beyond the exterior end surface of the receiving part.

39. (New) The anchoring element according to Claim 37, wherein the first thread comprises fewer than four full turns.

40. (New) The anchoring element according to Claim 38, wherein the first thread comprises fewer than four full turns.